

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1. (Currently Amended) A network system, comprising:

a client terminal that requests a peer-to-peer communication; and

a host terminal that supports a connection of the peer-to-peer communication,

wherein said client terminal generates a request message embodied by an electronic mail message that contains in the message body at least one character indicating an IP address of said client terminal, and said client terminal sends out the request message to said host terminal via a transmission mail server,

wherein said host terminal acquires the request message via a reception mail server, said host terminal extracts the IP address of said client terminal from a description content of the message body of the request message, said host terminal stores the extracted IP address in a table, said host terminal selects at least one IP address from the table and generates a reply message embodied by an electronic mail message containing in the message body at least one character indicating the selected at least one IP address, and said host terminal sends the reply message to said client terminal via the transmission mail server, and

wherein said client terminal acquires the reply message via the reception mail server, said client terminal extracts at least one IP address of other terminals from a description content the message body of the reply message, and said client terminal starts a peer-to-peer communication of data transmission and reception with another terminal which is specified

based on the extracted IP address.

2. (Currently Amended) A method of establishing a network connection comprising:
generating a request message embodied by an electronic mail message that contains in the message body at least one character indicating an IP address of a client terminal requesting a peer-to-peer communication;
sending the request message, via a transmission mail server, to a host terminal that supports a connection of the peer-to-peer communication;
acquiring by the host terminal the request message via a reception mail server;
extracting by the host terminal the IP address of the client terminal from a description content of the message body of the request message;
storing by the host terminal the IP address extracted by said extracting, in a table;
selecting by the host terminal at least one IP address from the table and generating a reply message embodied by an electronic mail message that contains in the message body at least one character indicating the at least one IP address selected;
sending, by the host terminal, the reply message to the client terminal, via the transmission mail server;
acquiring by the client terminal the reply message, via the reception mail server;
extracting by the client terminal at least one IP address of other terminals from a description content of the message body of the reply message; and
starting a peer-to-peer communication of data transmission and reception with other terminals which are specified based on the IP address extracted by the client terminal in said extracting.

3. (Previously Presented) A method according to claim 2, wherein said generating a request message includes encrypting the IP address and including the encrypted IP address in the request message, and

wherein said extracting by the host terminal includes extracting the encrypted message from the request message and decoding the extracted encrypted message.

4. (Previously Presented) A method according to claim 2, wherein said generating a reply message includes encrypting the at least one IP address and including the encrypted IP address in the reply message, and

wherein said selecting by the host terminal includes selecting the encrypted at least one IP address and then decoding the selected encrypted IP address.

5. (Currently Amended) A network terminal apparatus, comprising:
a data generator which generates a request message embodied by an electronic mail message that contains in the message body at least one character indicating an IP address of the network terminal;

a mail transmission and reception unit which sends out the request message to a second terminal serving as a host, via a transmission mail server, and which acquires a reply message embodied by an electronic mail message and serving as a response generated by and sent from the second terminal serving as a host, via a reception mail server;

a selection processing unit which extracts at least one IP address of other terminals from a description content of the message body of the reply message; and

a data exchanging unit which starts a peer-to-peer communication of data transmission and reception with a third terminal which is specified based on the IP address extracted by said selection processing unit.

6. (Previously Presented) A network terminal apparatus according to claim 5, wherein said data generator encrypts the IP address and has the encrypted IP address contained in the request message, and said selection processing unit extracts the encrypted IP address from the reply message and decodes the extracted IP address.

7. (Previously Presented) A network terminal apparatus according to claim 5, wherein, if data transmission and reception are unsuccessful with a destination terminal whose IP address is the extracted IP address, said data generator generates a message containing said IP address, and

wherein said mail transmission and reception unit sends, to the terminal serving as a host, said message indicative of an unsuccessful connection.

8. (Currently Amended) A network terminal apparatus, comprising:

a mail transmission and reception unit which acquires, via a reception mail server, a request message embodied by an electronic mail message containing in the message body at least one character indicating an IP address of a second terminal that requests a peer-to-peer communication;

an extraction processing unit which extracts the IP address from a description content of the message body of the request message;

an address storage unit which stores the extracted IP address in a table; and

a data generator which selects at least one IP address from a storage content of the table and generates a reply message embodied by an electronic mail message that contains in the message body at least one character indicating the selected IP address,

wherein said mail transmission and reception unit sends out the reply message to the requesting terminal, via a transmission mail server.

9. (Previously Presented) A network terminal apparatus according to claim 8,

wherein said extraction processing unit extracts an encrypted IP address from a description content of the request message and decodes the encrypted IP address, and

wherein said data generator encrypts the at least one IP address and has the encrypted IP address included in the reply message.

10. (Previously Presented) A network terminal apparatus according to claim 8,

wherein said address storage unit restricts the number of IP addresses to be stored in the table, and overwrites IP addresses previously stored .

11. (Previously Presented) A network terminal apparatus according to claim 8,

wherein said data generator selects from the storage content of the table a previously stored IP address.

12. (Previously Presented) A network terminal apparatus according to claim 8,
wherein said mail transmission and reception unit acquires a message containing
an IP address of a destination terminal with which the requesting terminal fails to start the data
transmission and reception, via the reception mail server, and said extraction processing unit
extracts the failure IP address from a description content of the message, and
wherein said address storage unit distinguishes the failure IP address from other
IP addresses.

13. (Currently Amended) A method of establishing a network connection, the method
comprising:

generating a request message embodied by an electronic mail message containing
in the message body at least one character indicating an IP address of a first terminal that
requests a peer-to-peer communication;

sending the request message to a second terminal serving as a host, via a
transmission mail server;

acquiring a reply message serving as a response embodied by an electronic mail
message generated by and sent from the second terminal serving as a host, via a reception mail
server;

extracting at least one IP address from a description content of the message body
of the reply message; and

starting a peer-to-peer communication of data transmission and reception with at
least one other terminal which is specified based on the IP address extracted by said extracting.

14. (Currently Amended) A method of establishing a network connection, the method comprising:

acquiring, via a reception mail server, a request message embodied by an electronic mail message containing in the message body at least one character indicating an IP address of a terminal that requests a peer-to-peer communication;

extracting the IP address from a description content of the message body of the request message;

storing the extracted IP address in a table;

selecting at least one IP address from a storage content of the table and generating a reply message embodied by an electronic mail message that contains in the message body at least one character indicating the selected IP address; and

sending the reply message to the requesting terminal, via a transmission mail server.

15-16. (Canceled)

17. (Currently Amended) A computer-readable recording medium which stores a program executable by a computer, the program comprising the functions of:

generating a request message embodied by an electronic mail message containing in the message body at least one character indicating an IP address of a first terminal that requests a peer-to-peer communication;

sending the request message to a second terminal serving as a host, via a transmission mail server;

acquiring a reply message embodied by an electronic mail message and serving as a response generated by and sent from the second terminal serving as a host, via a reception mail server;

extracting at least one IP address of other terminals from a description content of the message body of the reply message; and

starting a peer-to-peer communication of data transmission and reception with at least one other terminal which is specified based on the IP address extracted by the extracting.

18. (Currently Amended) A computer-readable recording medium which stores a program executable by a computer, the program comprising the functions of:

acquiring, via a reception mail server, a request message embodied by an electronic mail message containing in the message body at least one character indicating ~~containing~~ an IP address of a terminal that requests a peer-to-peer communication;

extracting the IP address from a description content of the message body of the request message;

storing the extracted IP address in a table;

selecting at least one IP address from a storage content of the table and generating a reply message embodied by an electronic mail message that contains in the message body at least one character indicating ~~that contains the~~ selected IP address; and

sending out the reply message to the requesting terminal, via a transmission mail server.